

## **Shipbuilding and Repair**

**1995 TRI Releases for Shipbuilding and Repair Facilities (SIC 3731)  
by Number of Facilities Reporting (pounds/year)\***

Chemical Name	# Reporting Chemical	Fugitive Air	Point Air	Water Discharges	Underground Injection	Land Disposal	Total Releases	Avg. Releases Per Facility
Xylene (Mixed Isomers)	30	853,863	99,379	9,292	0	0	962,534	32,084
N-butyl Alcohol	15	278,218	60,802	2,691	0	0	341,711	22,781
Copper Compounds[M]	8	91,410	0	3,968	0	250	95,628	11,954
Styrene[C]	8	7,209	87,069	250	0	0	94,528	11,816
Zinc Compounds[M]	6	75,417	27,278	2,920	0	250	105,865	17,644
Zinc (Fume or Dust)[M]	5	81,088	0	8,260	0	0	89,348	17,870
Chromium Compounds[C, M]	4	631	7,250	256	0	0	8,137	2,034
Methyl Ethyl Ketone	4	77,928	0	0	0	0	77,928	19,482
Toluene	4	25,806	30,239	0	0	0	56,045	14,011
Propylene	4	755	250	0	0	0	1,005	251
Nickel[C, M]	4	20	0	16	0	0	36	9
Copper[M]	4	20	0	261	0	0	281	70
Nickel Compounds[C, M]	3	30,592	0	294	0	250	31,136	10,379
Methanol	3	2,172	13,222	250	0	0	15,644	5,215
1,2,4-trimethylbenzene	3	42,399	18,100	0	0	0	60,499	20,166
Methyl Isobutyl Ketone	3	55,979	0	0	0	0	55,979	18,660
Manganese[M]	3	3,884	0	0	0	0	3,884	1,295
Chromium[M]	3	260	0	10	0	0	270	90
Lead Compounds[C, M]	2	546	0	261	0	250	1,057	529
Manganese Compounds[M]	2	620	0	250	0	250	1,120	560
Freon 113[O]	2	14,672	0	0	0	0	14,672	7,336
Ethylbenzene	2	16,993	1,159	0	0	0	18,152	9,076
Ethylene Glycol	2	256	26	0	0	0	282	141
Methyl Tert-butyl Ether	2	425	99,555	250	0	0	100,230	50,115
Barium Compounds[M]	1	3,600	0	0	0	0	3,600	3,600
Certain Glycol Ethers	1	22,000	5,000	0	0	0	27,000	27,000
Benzene[C]	1	426	84,999	0	0	0	85,425	85,425
1,1,1-Trichloroethane[O]	1	67,000	0	0	0	0	67,000	67,000
Dichloromethane[C]	1	8,400	0	0	0	0	8,400	8,400
Dichlorotetrafluoroethane (CFC-114)[O]	1	250	0	0	0	0	250	250
Dicyclopentadiene	1	18	6,072	0	0	0	6,090	6,090
Trichloroethylene[C]	1	15,600	0	0	0	0	15,600	15,600
Cumene	1	7	2,611	0	0	0	2,618	2,618
1,2-Dichloroethane[C]	1	31	2,634	0	0	0	2,665	2,665
Acrylonitrile[C]	1	250	5	250	0	0	505	505
N-hexane	1	57	11,608	0	0	0	11,665	11,665
2-ethoxyethanol	1	0	12,975	0	0	0	12,975	12,975
Cyclohexane	1	16	3,864	0	0	0	3,880	3,880
Lead[C, M]	1	0	0	0	0	0	0	0
	43**	1,778,818	574,097	29,479	0	1,250	2,383,644	55,434

[C] Known or suspect carcinogens

[M] Metals and metal compounds

[O]

Ozone depleters

\* Refer to Section III for a discussion of the TRI data and its limitations, methodology used to obtain this data, definitions of the column headings, and the definitions of carcinogens, metals, and ozone depleters.

\*\*Total number of facilities (not chemical reports) reporting to TRI in this industry sector.

**1995 TRI Transfers for Shipbuilding and Repair Facilities (SIC 3731)  
by Number of Facilities Reporting (pounds/year)\***

Chemical Name	# Reporting Chemical	Potw Transfers	Disposal Transfers	Recycling Transfers	Treatment Transfers	Energy Recovery Transfers	Total Transfers	Avg Transfer Per Facility
Xylene (Mixed Isomers)	30	250	35	223,254	14,020	407,986	645,545	21,518
N-butyl Alcohol	15	250	255	24,500	3,620	116,929	145,554	9,704
Copper Compounds[M]	8	1,525	3,878	647,200	44,700	.	697,303	87,163
Styrene[C]	8	0	2,835	118,127	2,420	30,837	154,219	19,277
Zinc Compounds[M]	6	1,950	2,828	.	36,028	.	40,806	6,801
Zinc (Fume or Dust)[M]	5	14	229,950	12,240	28,382	1,837	272,423	54,485
Chromium Compounds[C, M]	4	261	250	647,200	2,650	.	650,361	162,590
Methyl Ethyl Ketone	4	0	.	.	.	45,705	45,705	11,426
Toluene	4	0	15	.	20	15,745	15,780	3,945
Propylene	4	0	.	.	.	.	0	0
Nickel[C, M]	4	5	2,286	232,848	.	.	235,139	58,785
Copper[M]	4	5	3,678	251,005	.	.	254,688	63,672
Nickel Compounds[C, M]	3	251	.	.	7,000	.	7,251	2,417
Methanol	3	0	5	73,286	20	2,045	75,356	25,119
1,2,4-trimethylbenzene	3	0	.	.	.	33,883	33,883	11,294
Methyl Isobutyl Ketone	3	0	.	.	.	3,615	3,615	1,205
Manganese[M]	3	0	.	431,480	.	.	431,480	143,827
Chromium[M]	3	5	1,000	126,008	.	.	127,013	42,338
Lead Compounds[C, M]	2	251	900	1,064	3,244	.	5,459	2,730
Manganese Compounds[M]	2	0	.	.	.	.	0	0
Freon 113[O]	2	0	.	55,438	.	.	55,438	27,719
Ethylbenzene	2	0	15	.	20	7,214	7,249	3,625
Ethylene Glycol	2	250	5	.	20	.	275	138
Methyl Tert-butyl Ether	2	0	15	32,736	20	.	32,771	16,386
Barium Compounds[M]	1	0	.	.	100	.	100	100
Certain Glycol Ethers	1	0	.	.	.	22,000	22,000	22,000
Benzene[C]	1	0	15	.	20	.	35	35
1,1,1-Trichloroethane[O]	1	250	.	.	.	.	250	250
Dichloromethane[C]	1	0	.	.	.	21,500	21,500	21,500
Dichlorotetrafluoroethane[O]	1	0	.	.	.	.	0	0
Dicyclopentadiene	1	0	15	.	20	.	35	35
Trichloroethylene[C]	1	250	.	1,200	250	.	1,700	1,700
Cumene	1	0	5	.	20	.	25	25
1,2-Dichloroethane[C]	1	0	5	.	20	.	25	25
Acrylonitrile[C]	1	0	.	69,716	.	.	69,716	69,716
N-hexane	1	0	15	.	20	.	35	35
2-ethoxyethanol	1	0	.	.	.	200	200	200
Cyclohexane	1	0	5	.	20	.	25	25
Lead[C, M]	1	0	250	.	.	.	250	250
	43**	5,517	248,260	2,947,302	142,634	709,496	4,053,209	94,261

[C] Known or suspect carcinogens

[M] Metals and metal compounds

[O]

Ozone depleters

\* Refer to Section III for a discussion of the TRI data and its limitations, methodology used to obtain this data, definitions of the column headings, and the definitions of carcinogens, metals, and ozone depleters.

<b>Ten Largest Volume TRI Releasing Shipbuilding and Repair Facilities Reporting Only SIC 3731*</b>		
<b>Rank</b>	<b>Facility<sup>1</sup></b>	<b>Total TRI Releases in Pounds</b>
1	Newport News Shipbuilding - Newport News, VA	309,000
2	Atlantic Marine Inc. - Mobile, AL	268,670
3	Platzer Shipyard Inc. - Houston, TX	268,442
4	Norshipco - Norfolk, VA	229,000
5	Bethlehem Steel Corp.-Port Arthur, TX	133,020
6	Cascade General, Inc. - Portland, OR	116,929
7	Trinity Industries-Gulfport, MS	90,983
8	Todd Pacific Shipyards - Seattle, WA	85,081
9	Avondale Industries Inc. - Avondale, LA	84,650
10	Jeffboat - Jeffersonville, IN	82,108

Source: *US Toxics Release Inventory Database, 1995.*

\*Refer to Section III for a general discussion of TRI data and its limitations. A discussion of the methodology used to develop this table can be found under the heading *Ten Largest Volume TRI Releasing Facilities.*

<b>Ten Largest Volume TRI Releasing Facilities Reporting Only SIC 3731 or SIC 3731 and Other SIC Codes*</b>			
<b>Rank</b>	<b>Facility<sup>1</sup></b>	<b>SIC Codes Reported in TRI</b>	<b>Total TRI Releases in Pounds</b>
1	Ingalls Shipbuilding Inc. - Pascagoula, MS	3,731, 3441	723,560
2	Newport News Shipbuilding - Newport News, VA	3731	309,000
3	Atlantic Marine Inc. - Mobile, AL	3731	268,670
4	Platzer Shipyard Inc. - Houston, TX	3731	268,442
5	Norshipco - Norfolk, VA	3731	229,000
6	Gunderson Inc. - Portland, OR	3743, 3731	133,020
7	Bethlehem Steel Corp. - Port Arthur, TX	3731	116,929
8	Cascade General Inc. - Portland, OR	3731	90,983
9	Trinity Ind. - Gulfport, MS	3731	85,081
10	Todd Pacific Shipyards - Seattle, WA	3731	84,650

Source: *US Toxics Release Inventory Database, 1995.*

\*Refer to Section III for a general discussion of TRI data and its limitations. A discussion of the methodology used to develop this table can be found under the heading *Ten Largest Volume TRI Releasing Facilities.*

<sup>1</sup> Being included on this list does not mean that the release is associated with non-compliance with environmental laws.

Source Reduction and Recycling Activity for Shipbuilding and Repair Facilities (SIC 3731) as Reported within TRI*									
A	B	C	On-Site			Off-Site			J
Year	Quantity of Production- Related Waste (10 <sup>6</sup> lbs.) <sup>a</sup>	% Released and Transferred <sup>b</sup>	D	E	F	G	H	I	% Released and Disposed <sup>c</sup> Off-site
			% Recycled	% Energy Recovery	% Treated	% Recycled	% Energy Recovery	% Treated	
1994	5.32	113%	1.1%	0.0%	0.7%	36.1%	12.6%	3.6%	46%
1995	6.45	100%	0.5%	0.0%	0.7%	45.7%	11.2%	2.2%	44%
1996	5.62	---	0.7%	0.0%	0.7%	40.1%	11.3%	3.1%	44%
1997	5.59	---	0.8%	0.0%	0.7%	40.6%	11.1%	3.1%	44%
Source: 1995 Toxics Release Inventory Database. * Refer to Section III for a general discussion of TRI data and its limitations. A discussion of the methodology used to develop this table can be found under the heading <i>Source Reduction and Recycling Activity</i> . <sup>a</sup> Within this industry sector, non-production related waste < 1% of production related wastes for 1995. <sup>b</sup> Total TRI transfers and releases as reported in Section 5 and 6 of Form R as a percentage of production related wastes. <sup>c</sup> Percentage of production related waste released to the environment and transferred off-site for disposal.									

Five-Year Enforcement and Compliance Summary for the Shipbuilding and Repair Industry*									
A	B	C	D	E	F	G	H	I	J
Region	Facilities in Search	Facilities Inspected	Number of Inspections	Average Months Between Inspections	Facilities with 1 or More Enforcement Actions	Total Enforcement Actions	Percent State Lead Actions	Percent Federal Lead Actions	Enforcement to Inspection Rate
I	6	6	34	11	4	6	83%	17%	0.18
II	0	0	0	--	0	0	0%	0%	--
III	6	5	66	5	1	1	100%	0%	0.02
IV	13	9	49	16	5	8	100%	0%	0.16
V	1	1	8	8	0	0	0%	0%	--
VI	13	12	72	11	8	14	79%	21%	0.19
VII	0	0	0	--	0	0	0%	0%	--
VIII	0	0	0	--	0	0	0%	0%	--
IX	2	1	6	20	0	0	0%	0%	--
X	3	3	8	23	2	3	67%	33%	0.38
TOTAL	44	37	243	9	20	32	84%	16%	0.13

\*Data obtained from EPA's Integrated Data for Enforcement Analysis (IDEA) System. For a description of IDEA and the methods used to obtain this data, refer to Section II.C. A discussion of this table can be found under the heading, *Five-Year Enforcement and Compliance Summary*, in Section III.